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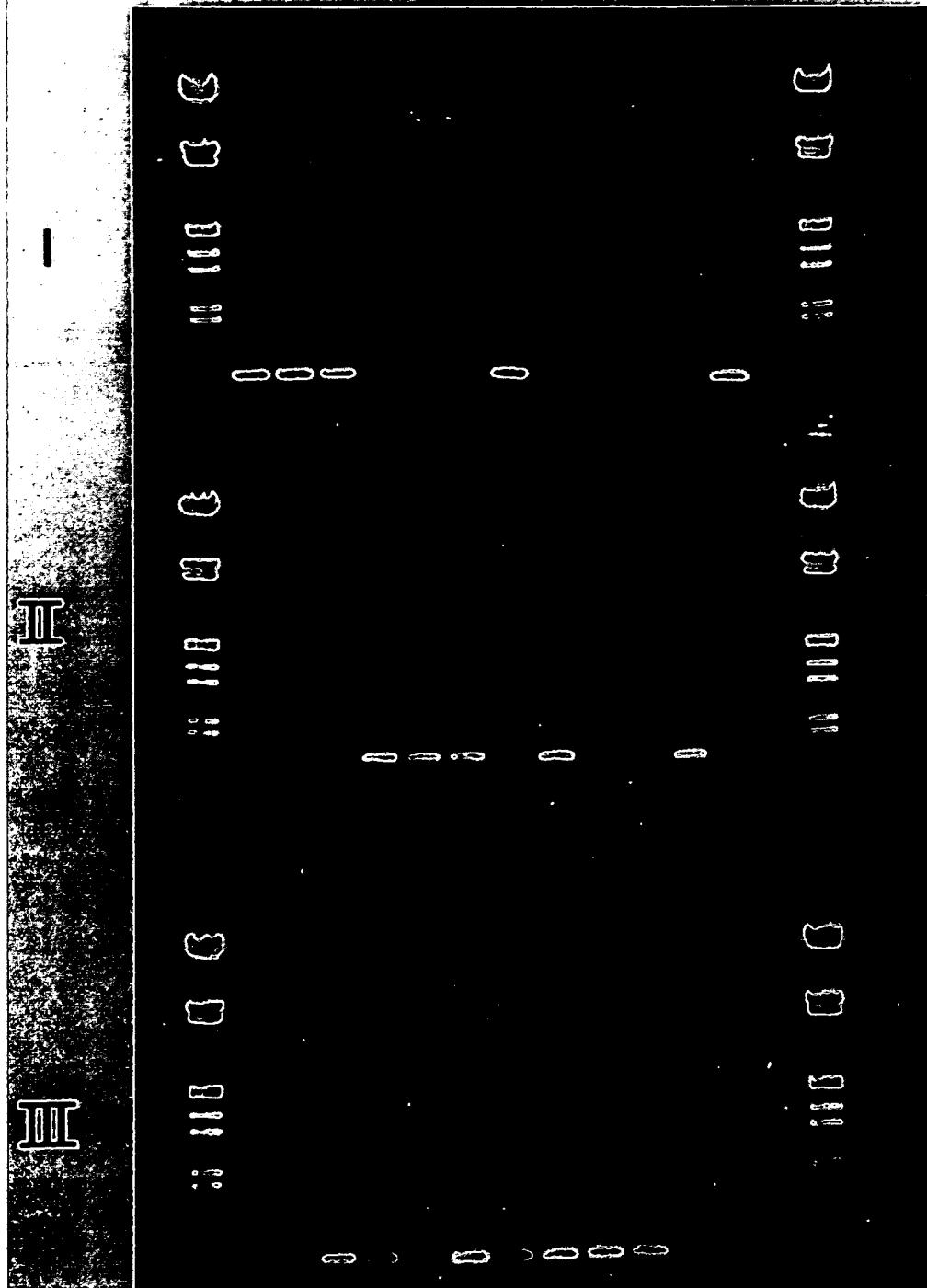


Fig. 2

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 TCTCCAAACG CTATTTAGAA TTGTATATAA ACAATTGAAG CAAAATAAGC GACTTGCTTT
 ACTAATGAAT GCTTATTATT TGGTAGGGTG TCTTCATCTT AATTTTAGT
 TCTTTCTGAA AACGGGAAA GATAAAATTC AAGAAAGATT GAGAAGAAGT GAAAGTAGTA
 CTCGGTAAGA ATGGTGAAT AAATGGTTGA AAGAAAAGGG GATTAAAATG
 AATCCAACAA ATAGTGAAT AGCACTCTT GATACGATTA ATGTATCAT GGTACTTGT
 GTTATTTTA CACATCTGGA TTGGTCTGTT GAGCAGCGTC ATGGTTTAT
 CTTTCCGTAT TTGCTTGACA TGGCTGTTCC AATTTTCTG TTGCTTCTG CCTATTTCG
 AACGAATAAG TGGAAATACAA AACAAAGAGAC GCTAAAGCTC AAGTTCAGCA
 GTGGTATAAA AGAAAGTATA AACATGCTT GTCTCTATGC TATCGTGATG GCTGTTAATG
 TTTTATTGAG CTATTCGAGA ACCATCTGAT AGGAGTAAAG CTTTTTCAG
 GTTCTTCATC GCTCCGTTCA TTTGCTCTGT GGCTACTTTC TGGAGAATCG GGTCCAGGGA
 GTTGGGAGTT ACTATGTTCC GTTGTGATT CAGGTAGTTT TTTTATTACC
 AATTTGTAT GTTCTTTTCG AGAAAATAA ATGGTTGGGC TTGCTTACTT GTTTTTAGT
 AAACTTTCG ATGGATGCCA TATTTGCTAA CATGGCTGAA CACGGCATAT
 ATATATAGAC TAATATCACT TCGTTATCTT TTTGTTCTAG GGCTTGGTTT TTTCTTCAA
 AGCAGGATGT GCGTTCCAAG GTAGATACTT TCATTGCGAC CCTATTGAG
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 GGTTGGAAGT CTACTTCCCT TCTATGCGTC CCATTGCGGT ATGCTATGCT
 ATTTTTATG ATAAAGTATG GACAGAAGAT TCCAGCAATA CTGTTGTCAA AATTGGGAGT
 TGCTTCTTAT CATATCTACT TGACCCAGAT GCTGTATTT TCAGTAGTCG

CACCACTTTT AGCAGTGC A TTTAAGGTAT CTTCGTTGAA TTTGTGGAAC GGCTTGTAA
 CCTTTCTAAT TTGCGCTGTT GGTGGCTATA TTTTCTACAA AGTGGATCTG
 TTTATGAGAG TACGTGGAAA ACGATAATGA CTCATTTCAG ATTAGCAGAT GCCATTCTG
 TTATTAGCAG ATTGGCATGT TAATATTCCG ACAAAAGAAAT TCAAATAGGT
 TGACGAGAGA GGAGTGGTAT CTGTTCTAA ACCCCAGTAT CCCCCCTTTAT TTTCAAAGCT
 ATATTTATTA ACTGAACAAG GAGAATT TTTT AAGAGAACTG TTTGTTAA
 CCCAGCACGA TCTGGTTCGA AAGGCTTACG GAATAAAAAC ATGCTATT TGGACGGAA
 ACCCATGATT TTTCACACGA TTGATGTGGC AATTGAATCA GTTGTGTTTG
 AGAAAGAAGA CATCTATGTC AGTACGGATT CAGAAATGTA TAAGGGGGGC ACCTCTATAA
 ATTCCCCAAA TTGCAATT GGAGTTACGA AAGCCTTGT AAATCAACAT
 CTTAAATTT AGAAAATTAG TTTTAGAGG TCCCCAAGGG GATTTCGAG ACAAGAGGCA
 TCAATGTATT GTAAAGACCC AAAGAACTAT CTACTTATCA TACTCCATCG
 AATGAAGTC GTACGCACCTT TTTTACGAAT CTGGATT TGAAGATTGT ATATTGTT
 TTCTGCAAGT CACCTCACCG TTACGGACTG GCGAACAGAT AAAAGAAGCC
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 GAAAGAGTGA ATCACTACAT TATCGAAGCT GTACAGGGGT TATAAAAAGG
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 CGTTTGATA TCGTGTGAC CTAGTTTCG TCTGCTTTAG ATTTTTTAAA TTGTTTGAA
 GAGAAAGTGT ATTAAAGGA CACTTTCTT CTTCTTCAA AAAATGATAT
 TTGCGTGAG GGGATAGAAAGGAGGATC ATGCTAAAA AATCAATAGT TGTCTCAGGT
 CTCGTCTATA CGATTGGAAC CATCCTCGTT CAGGGATTAG CTTCTTAC
 CCTCCCCATC TATACTCGTG TCATTTCTCA GGAAGTATAT GGGCAGTTA GCTTGTATAA
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 CTTTGGCCC GGGATGGTA CACTTCCGCG AGAAATTGA TGATTTCTA TCCACCTTGA
 TGGTCTCTC TATCGTTTC TTTTACCAA TTTTGGGCT ATCTTTCTC
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 TTGCAAAGTT TTATGAGTGT TGTCAGGAA TTTTTTACGA CCTATTAGT
 GCAGGGCGAG CAGTCCATGT GGACTTTACT CCTATCGGTA CTGAGCGCTG TTATCAACAC
 TGCTTTACT TTATTTCTCA TCTTTTCGAT GGAGAATGAT TTCATCGCTC
 GTGTAATGGC AACTCGGCA ACGACTGGTG TTTTGCTTG TGTGTCCTTG TTGTTTTCT
 ATAAGAAGAT TGGGCTTCAT TTGAAAGG ACTATCTCG GTATGGTTA
 AGTATATCGA TTCTCTTAT TTTTCATGGA TTAGGTCTA ATGTAATCAA TCAATTGAC
 AGAATCATGC TCGGCAAGAT GCTAACACTG TCAGATGTAG CCCTATACAG
 TTTCGGCTAC ACACCTGCGT CTATCTTACA AATTGTGTT TCGAGCTTGA ATACGGTATG
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 ACCCTGAATT AGCGATGTT TTAGGTGGAT CTGAGTATCG TTTCACTATG
 GGATTTATTC CCATGATTAT TGCGGGGTG TTCTTTGTAT TTCTTTATAG TTTCCAGGC
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 TATAGCAGGT GTACTAAATA TTTCGTCCA CTTTGTGTTG ATACCGACAA AGAATTATG
 GTGCTGCTT GCAACGACTG TTTCCTATCT GTGTTGCTA GTCTTGCATT
 ATTTGTGTC TAAGAAAAAG TATGCTTACG ATGAAGTGTG GATTTCACAA TTTGTAAAGG
 TAATTGCTCT TTGTTGCTC TATACAGGCT TGATGACAGT ATTGTGCGGT
 TCAATCTGGA TTGTTGGTC ACTAGGAATA GCGGTTCTAG TCGTTATGC CTACATT
 AGAAAGGAAT TAACAGTTGC CCTCAATACA TTCAGGGAAA AACGGTCTAA

ATAAGGGCAC CTCTATAAAC TCCC AAAATT CGAATTGG AGTTACGAAA GCCTGTTAA
ATCAAACATT TAAATTTA GAAAATTAGT TTTAGAGGT CCCCATATAA
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CAAGTATTCT CTACCATGAA AATTGTGCTA TAATCAAGTA TAAAGAAGGG
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CTAAAATTG GGTAGAAAAG CAGATTAAC TTCCACCAAT CTATTGAAGA
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TGTCTTTA CTACTTAAGG AAAACCAAGC TGCTCCCTCA AGACTTTATG GGAGCGATT
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ATTTGAGGA AGACCAAAAT ATTTGCCATA GTGCTTTGA AAATCAAATG
TAAGCGGAGT AAGGATGAAA AAAATTGTT TTGTGACAGG CTCTCGTGC GAATATGGGA
TTATGCGTCG CTTATTGAGC TATCTACAGG ATGATCCAGA AATGGAGCTG
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TTTGAAAGAA GTCCAGTATG ACTTGGTGT GATTCTGGGG GATCGCTATG
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GTGGTGAAGAA AACCATGGGA AATTGATG AGTCGATTG CCGATCCATT
ACCAAGATGA GTCACCTTC TCTGACATCA ACGGATGAAT TTGAAATCG TGTCATTCAA
CTAGGAGAAA ATCCAACCAT GTACTGAACA TCGGAGCTAT GGGTGTGAA
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TTTGCCGAGG ATTACTATGT TGTACTCTT CACCTGTAA CCTTGGAGGA
TAACACAGCC GAAGAACAAA CGCAGGCTT ATTAGATGCT CTAAAAGAAG ATGGTAGCCA
GTGTTGATA ATTGGATCA ATTGGATAC ACATGCCAT AAGATAATGG
AATTGATGCA TGAATTGTA AAACAAGACT CTGATTCTTA CATCTTACT TCGCTCCAA
CTCGTTATA CCATTCTTG GTCAAGCATT CACAAGTTT ATAGGGAAT
TCTTCGTCAG GTTGATTGA AGTCCCCTCA TTACAGGTTT CGACCTTAA TATTGAAAT
CGCCAATTG GACGTTGTC AGGAGCGAGT GTGGTACATG TTGGAACTTC
TAAGGAAGCG ATTGTTGGTG GTTGGGGCA ATTACGTGAT GTGATAGATT TTACCAATCC
ATTGAAACAA CCGTATTCTG CTTTACAAGG TTATCGAGCT ATCAAGGAAT
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TATCATCAAT ACGGGTGCCA TTGTGGAACA TCATACCACG GTGGAGGCC ATTGTAACAT
TACTCCAGGA GTGACCATAA ATGGCTTGTG CCGTATCGGA GAAAGCACTT
ATATTGGAAG TGGTCAACA GTGATTCAAT GTATCGAGAT TGCACCTTAT ACAACATTGG
GGCAGGGAC AGTTGTTTG AAATCGTTGA CGGAGTCAGG GACCTATGTT

GGTGTACCTG CTAGAAAGAT TAAATAGGTG AATTGATGGA ACCAATTGATG CTGATTCCCTG
 CTCGGTCAGG ATCAAAAGGT TTACCAAAATA AAAACATGTT ATTTTAGAT
 GGTGTACCGA TGATTTCCA TACCATTGCA GCTGCGATTG AGTCTGGATG TTTAAGAAA
 GAAAATATAT ATGTCAGTAC TGATTCAAGAG GTTTACAAGG AAATTGTGA
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 TTTTCAACTG AACGAACATT TTTTACAAGA TTTTCTGAT GACCAAGTAT
 TTGTTCTCCT GCAAGTTACG TCCCCATTAA GATCGGGAAA ACATGTCAAG GAGGCGATGG
 AGTTATATGG GAAAGGTCAA GCTGACCAAG TTGTTAGCTT TACCAAAAGTC
 GATAAGTCTC CAACATTGTT TTCAACTTTA GACGAAAACG GATTGCTAA GGATATTGCA
 GGATTAGGTG GCAGTTATCG TCGTCAAGAT GAGAAAACAC TCTACTATCC
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 TGAAAAAAACA GCGGCCTATG TGATGACGAA GGAAGATTG ATTGATGTAG
 ATGATCACTT TGATTTACT GGTGTTATTG GTCGAATTAA CTTGATTAC CAGCGTCGTG
 AGCAACAAAA CAAACCAATT CAACGAGTCC ATGATAGTCT CGGTGGGATG ACAGCTTCGA CAGCACTTGA
 AAACCAAGGT CTCTTTTGG TATAAAAGAG AGTTAAAGCG TTATGTGAG
 TGATTTGATT ACTGACTATC CTTGCAATAT GATTGAGGAT ACTATTGCC
 AGCTGATGGA AAGTCTTGT TCCAAAGCAG AGCAGGTTT TG TGACGACG ATTGCCTACA
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 GTTATTGTT AGTCAGCAAG TGAACTGGT ATTTCACTGA TTGATCTAAA TGAAGTTGTT
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 CAATCAGATT GGACAAGAGC GTGTGAATCA GCTGATTGTT ACAAAGTTGCA AAGATAATT
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 AAAGTCATCA GTCTGGCGG TCGTCTCAC CTAGACTATC TCATGATGTT
 CAAAGCGTC TTGCTTCAC GTCCTCATAA CCTATCTGAC GATGCCATGG AATATCAACT
 GCTGGATCGT ATATCTTTC GTCTTGTGTT TGGTTGTCAT GAAGACACTG
 TTCCCGATGC GAAAACATC TGGCTCTATC GTGAGAAATT AACCAAGTCA GGCGTGA
 AGGAGTTGTT CGATTGTT TATGCCATC TCACAGATGA AGGGGTGATT
 GCCCATTCAAG GTCAGATTGT GGATGCTACC TTTGTCGAAT GCCCTAAACA ACGCAATTCA
 CGTGAGGAGCA ATCAGAAAAT CAAAACCTTAT CGAAAATTAT GAGGTACCAA
 CAGCTAGTGT ACACGACTCC AATGCTCTAG CTCCCTTTG TGATGCAAT GAAGCGTTT
 TTGATGACAG TGCTTATGTT GAAAATCAG TACCAAGAAGG TTGTCGCCAC
 CACACGATTC GTCTGCTTT TAGAAAATAA CGTTGACTG AGACTGATAA GGTCATTAAT
 CGACATATTA CCAAAGTCCG TTGTCGGTT GAGCATGGTT TGGCTTCAT
 TGAAACTAAC ATGAAAGGTA ACATGTCG AGCAATTGGG AAGGCACGAG CTGAAACCAA
 TGTGACCTTA ACCAACCTGC TCTACAAAT CTGTCGTTT GAGCAAATCA
 AACGACTGGG ATTACCATCC GTGGCTTAG TGCGCCAAA AAATAGGAAA ATAAGCAAAA
 AGAGGCTGGG CAAAACCTAG TTTCTCACAA TAAAAAAACG GCTCTTGTGTC
 AACTGTAGTG GGTAGACGAA AAGCTAACAC CTAGAGAGGA CGAAAATTGCGT TCTCTCATTT
 TTGATGTTA AAGCGTAACC GCCTAATAAC AAGGTATCTA TCCAATCACA
 CATTCTCCA TTATATAGTT AAATGAAACA AAAACAGTAC ATCTATGATA TAATGTATTT
 ATGGCATATT CATTAGATT TGTTTAAAGA GTTCTCGCAT ACTGTGAGAA
 AACCGGGAGT ATTACTGAAG CATCAGCTAT TTTCAAGTT TCACGTAACA CTATCTATCA
 ATGGCTAAA TTAAAAGAGA AAACCGGCCA GCTTCATCAC CAAGTTAAAG
 GAACCAAGCC AAGAAAAGTG GATAGAGATA AATTAAAGAA TTATCTTGAA ACTCATCCAG
 ATGCTTATTT GACTGAAATA GCTTCTGAAT TTGACTGTCA TCCAACAGCT
 ATTCAATTAC CCCTCAAAGC TATGGGATAT ACTCGAAAAA AAAGAGCTGT ACCTACTATG
 AACAAAGACCC TGAAAAAGTA GAACTGTTCC TTAAAGAATT GAATAACTTA
 AGCCACTTGA CTCCGTGTTA TATTGACGAG ACAGGGTTG AGACATATT TCATCGAAAA
 TATGGTCGCT CTTGAAAGG TCAGTTGATA AAAGGTAAAGG TCTCTGGAAAG
 AAGATACCAAG CGGATATCTT TAGTAGCAGG TCTCATAAT GGTGCGCTTA TAGCCCCGAT
 GACATACAA GATACTATGA CGAGTGGCTT TTTCGAAGCT T

Fig. 3 cont.

11/59

SLDI DHMMEVMEASKSAAGSACPSPOAYQAAFEGAENIIVVTITGGLSGSFNAARVARDM
YIEERPNVNIHLIDSLSASGEMDLLVHQINRLISAGLDFPQVVEAITHYREHSKLLFVLA
KVDNLVKNGRLSKLVGTVVGLLNIRMVGEASAEGKLELLQKARGHKKSVTAAFEEMKKAG
YDGGRIVMAHRNNAKFFQQFSELVKASFPTAVIDEVATSGLCSFYAEEGGLLMGYEVKA

Fig. 3 cont.

ORF2Z

12/59

MKKYQVIIQDILTGTIEEHRFKRGEKLPSTIQLREQYHCSKDTVQKAMLELKQNKIYAVE
KSGYYILEDRDFQDHTCRAQSQRSLRITYEDFRICLKESSLIGRENYLFNYYHQQEGLAEL
ISSVQSLLMDYHVYTKKDQLVITAGSQQALYILTQMETLAGKTEILLENPTYSRMIELIR
HQGIPYQTIERNLDGIDLEELESIFQTGKIKFFYTIPRLHNPLGSTYDIATKTAIVKLAK
QYDVYIIEDDYLADFDSSHSLPLHYLDDTNRVIYIKSFTPTLFPALRIGAISLPNQLRDI
FIKHKSLIDYDTNLIMQKALSLYIDNGMFARNTQHLHHIYHAQWNKIKDCLEKYALNIPY
RIPKGSVTFQLSKGILSPSIQHMFHKCYFSGQKADFLQIFFEQDFADKLEQFVRYLNE

Fig. 3 cont.

ORF2Y

13/59

MKIIIPNAKEVNTNLENASFYLLSDRSKPVLDAISQFDVKKMAAFYKLNEAKAELEADR
YRIRTGQAKTYPAWQLYDGLMYRMDRRGIDSKEENYL RDHVRVATALYGLIHPFEFISP
HRLDFQGSLKIGNQSLKQYWRPYYDQEVGDELILS LASSEFEQVFSPQIQKRLVKILFM
EEKAGQLKVHSTISKGRGRLLSWLAKNNIQELSDIQDFKVDGF
EYCTSESTANQLTFXR
SIKM

Fig. 3 cont.

ORF2X

MKKRSGRSKSSKFVLNFALLGLYSITLCLFLVTMYRYNILDFRYLNIVTLLLGVAVL
AGLLMWRKKARIFTALLLVFSLVITSVGIYGMQEVKFSTRLNNSNSTFSEYEMSLVPA
SDITDVRQLTSILAPAEYDQDNITALLDDISKMESTQLATSPGTSYLTAYQSMLNGESQA
MVFNGVFTNILENEDPGFSSKVKKIYSFKVTQTVETATKQVSGDSFNIYISGIDAYGPIS
TVSRSDVNIIMTVNRATHKILLTTTPRDSYVAFADGGQNQYDKLTHAGIYGVNASVHTLE
NFYGIDISNYVRLNFISFLQLIDLVGGIDVYNDQEFDSLHGNYHFPVGQVHLNSDQALGF
VRERYSLTGGNDNDRGKNQEKVIAALIKMSTPENLKNYQAILSGLEGSIQTDLSETIMS
LVNTQLESGTQFTVESQALTGTGRSDLSSYAMPGSQLYMMIEINQDSLEQSKAAIQSVLVE
K

Fig. 3 cont.

CPS2A

15/59

MNNQEVAIEIDVLFLKKTIRKKFLILLTAVLTAGLAFVYSSFLVTPQYDSTTRIYVVS
QNVEAGAGLTNQELQAGTYLAKDYREIILSQDVLTQVATELNKESLKEKISVSI PVDTR
IVSISVRDADPNEAARIANSLRTFAVQKVVETKVSVDVTTLEEAVPAEEPTTPNTKRNIL
LGLLAGGILATGLVLVMEVLDDRVKRPQDIEEVMSGTLLGIVPDSKKLK

Fig. 3 cont.

CPS2B

16/59

MAMLEIARTKREGVNKTTEEYFNAIRTNIQLSGADIKVVVGITSVKSNEGKSTTAASLAIAY
ARSGYKTVLVDADIRNSVMPGFFKPIKITGLTDYLAGTTDLSQGLCDTDIPNLTVIESG
KVSPNPTALLQSKNFENLLATLRRYYDYVIVDCPPLGLVIDAAIIAQKCDAMVAVVEAGN
VKCSSLKKVKEQLEQTGTPFLGVILNKYDIATEKYSEYGNYGKKA

Fig. 3 cont.

CPS2C

17/59

MIDIHSIIIFGVDDGPKTIEESLSLISEAYRQGVRYIVATSHRRKGMFETPEKIIMINFL
QLKEAVAEVYPEIRLCYGAELYYSKDILSKLEKKVPTLNGSCYILLEFSTDTPWKEIQE
AVNEMTLLGLTPVLAHIERYDALAFQSERVEKLIDKGCYTOVNSNHVLKPALIGERAKEF
KKRTRYFLEQDLVRCVASDMHNLYSRPPFMREAYQLVKKEYGEDRAKALFKKNPLLILKN
QVQ

Fig. 3 cont.

CPS2D

MNIEIGYRQTKLALFDIMIATISAILTSHIPNADLNRSGIFIIMMVHYFAFFISRMPVEF
EYRGNLIEFEKTFNYSIIFVIFLMAVSFMLENNFALSRRGAVYFTLINFVLVYLFNVIK
QFKDSFLFSTTYQKKTILITTAELWENMQVLFESDILFQKNLVALVILGTEIDKINLPLP
LYYSVEEAIGFSTREVVDYVFINLPSEYFDLKQLVSDFELLGIDVGVDINSFGFTVLKNK
KIQMLGDHSIVTFSTNFYKPSHIWMKRLLDILGAVVGLIISGIVSILLIPIIIRRDGGPAI
FAQKRVGQNQGRIFTFYKFRSMFVDAEVRKKELMAQNQMGGMFKMDNDPRITPIGHFIRK
TSLDELPQFYNVLIGDMSILVGTRPPTVDEFEKYTPSQKRRLSFKPGITGLWQVSGRSDIT
DFNEVVRLDLTYIDNWTIWSDIKILLKTVKVULLREGGQ

Fig. 3 cont.

CPS2E

MRTVYIIGSKGIPAKYGGFETFVEKLTEYQDKSINYFVACTRENSAKSDITGEVFEHNG
ATCFNIDVPNIGSAKAILYDIMALKKSTEIAKDRNDTSPIFYILACRIGPFIYLFKKQIE
SIGGQLFVNPDGHEWLREKWSYPVRQYWKFSESLMLKYADLLICDSKNIEKYIHEDYRKY
APETSYIAYGTDLDSRLSPTDVVREWYKEKEISENDYYLVVGRFVPENNYEVMIREFM
KSYSRKDFVLIITNVEHNSFYEKLKKETGFDKDRIKFVGTVYNQELLKYIRENAFAYFHG
HEVGGTNPSLLEALSSTKLNLDDVGFNREVGEEGAKYWNKDNLHRVIDSCEQLSQEQIN
DMDSLSTKQVKERFSWDFIVDEYEKLFKG

Fig. 3 cont.

CPS2F

20/59

MKKILYLHAGAELYGADKVLLLEIKGLDKNEFEAHVILPNDGVLVPALEVGQAQVEVINY
PILRRKYFNPKGIFDYFISYHHYSKQIAQYATENKVDIIBNNNTAVLEGIYLKRKLPL
LWHVHEIIIVKPKFISDSINFLMGRFADKIVTVSQAVANHIKQSPHIKDDQISVIYNGVDN
KVFYQSDARSVRERFDIIDEALVIGMGRVNAWKGQGDFLEAVAPILEQNPKAIAFIAGS
AEGEERVRVVELEKKISQLKVSSQVXRMDDYYANTTELYNMFDFVLPSTNPDPLPTVVLK
AMACGKPVVGYRHGGVCEMVKEGVNGFLVTPNSPLNLSKVILQLSENINLRKKIGNNSIE
RQKEHFSLKSYVKNFSKVYTSLKVY

Fig. 3 cont.

CPS2G

21/59

MKIIISFTMVNNESEIIIESFIRYNYNFIDEMVIIDNGCTDNTMQIIFNLIKEGYKISVYDE
SLEAYNQYRLDNKYLTKIIIAEKNPDLIIPLDADEFLTADSNPRKLLEQLDLEKIHYVNWO
WFVMTKKDDINDSFIPRRMQYCFEKPVWHSDGKPVTKCIISAKYYKKMNLKLSMGHHTV
FGNPNVRIEHHDNLKFAHYRAISQEQLIYKTICYTIRDIATMENNIEATAQRTNQMLIES
GVDMWETAREASYSGYDCNVIHAPIDLSFCKENIVKYNELSRETVAERVMKTGREMAVR
AYNVERKQKEKKFLKPIIFVLDGLKGDEYIHPNPSNHLTILTEMNVRGLLTDNHQIKFL
KVNRYLIITPDFAKFLPHEFIVVPDTXDIEQVKSQYVGTGVDSLKIISLKEYRKEIGFIG
NLYALLGFVPNMLNRUYIQRNGIANTIIKIKSRL.

Fig. 3 cont.

CPS2H

22/59

MQADRRKTFGKMRIRINNLFFVAIAFMGIIISNSQVLAIGKASVIQYLSYLVLIICIVN
DLLKNNKHIIVVYKLGYLFLIIIFLFTIGICQQILPITTKEYLSISMMIISVLATLPISLIK
DIDDFRRISNHLLFALFITSILGIKMGTATMFTGAVEGIGFSQGFNGGLTHKNFFGITILM
GFVLTYLAYKYGSYKRTDRFILGLEFLILISNTRSVYLILLLFLFLVNLDKIKIEQRQW
STLKYISMLFCAIFLYYFFGLITHSDSYAHRVNGLINFFFEYRNDWFHLMFGAADLAYG
DLTLDYAIRVRRVLGWNGTLEMPLLSIMLKNGFIGLVGYGIVLYKLYRNVRILKTDNIKT
IGKSVFIIVVLSATVENYIVNLSFVFMPICFCLLNSISTMESTINKQLQT

Fig. 3 cont.

CPS2I

23/59

MEKVSIIIVPIFNTTEKYLRECLDSIISQSYTNLEILLIDDGSSDSSTDICLEYAEQDGRIK
LFRLPNGGVSNARNYGIKNSTANYIMFVDSDDIVDGNIVESLYTCLKENDSDLGGLLAT
FDGNYQESELQKCQIDLEEIKEVRDLGNENFPNHYMSGIFNSPCKLYKNIYINQGFDTE
QWLGEDLLFNLNYLKNIKVRYVNRNLYFARRSLQSTTNTFKYDVFQLENLEEKTFDLF
VKIFGGQYEFSVFKETLQWHIIYYSLLMFKNNGDESLPKKLHIFKYLYNRHSLDTLSIKRT
SSVFKRICKLIVANNLFKIFLNTLIREEKNN

Fig. 3 cont.

CPS2J

24/59

MINISIIVPI YNVEQYLSKC INSIVNQTYK HIEILLVNDG STDNSEEICL AYAKKDSRIR
YFKKENGLS DARNYGISRA KGDYLAFIDS DDFIHSEFIQ RLHEAIEREN
ALVAVAGYDR VDASGHFLTA EPLPTNQAVL SGRNVCKLL EADGHRFVVA WNKLYKKELF
EDFRFEKGKI HEDEYFTYRL LYELEKVAIV KECLYYVDR ENSIITSSMT
DHRFHCLLEF QNERMDFYES RGDKELLLEC YRSFLAFAVL FLGKYNHWLS KQQKKLLQTL
FRIVYKQLKQ NKRLALLMNA YYLVGCLHLN FSVFLKTGKD K1QERLRRSE
SSTR

Fig. 3 cont.

CPS2K

25/59

MSKKSIIVSG LVTIGTILV QGLAFITLPI YTRVISQEVY GQFSLYNSWV GLVGLFIGLQ
LGGAFGFGWV HFREKFDDFV STLMVSSIAF FLPIFGLSFL LSQPLSLLFG
LPDWVVPLIF LQSLMIVVQG FFTTYLVQRQ QSMWTLPLSV LSAVINTALS LFLTFPMEND
FIARVMANPA TTGVLACVSX WFSQKKNGLH FRKDYLRYGL SISIPLIFHG
LGHNVLNQFD RIMLGKMLTL SDVALYSFGY TLASILQIVF SSLNTVWCPW YFEKKRGADK
DLLSYVRYYL AIGLFVTFGF LTIYPELAMI LGGSEYRFSM GFIPMIIIVGV
FFVFLYSFPA NIQFYSGNTK FLPIGTFIAG VLNISVHFVL IPTKNLWCCF ATTASYLLL
VLHYFVAKKK YAYDEVAIST FVKVIALVVV YTGLMTVFVG SIWIRWSLGI
AVLVVYAYIF RKELTVALNT FREKRSK

Fig. 3 cont.

CPS20

26/59

MVYIIAEIGC NHNGDVHLAR KMVEVAVDCG VDAVKFQTFK ADLLISKYAP KAEYQKITG
ESDSQLEMTR RLELSFEEYL DLRDYCLEKG VDVFSTPFDE ESLDFLISTD
MPVYKIPSGE ITNLPLYLEKI GRQAKKVLIS TGMAVMDEIH QAVKILQENG TTDISILHCT
TEYPTPYPAL NLNVLHTLKK EFPNLTIGYS DHSVGSEVPI AAAAMGAELI
EKHFTLDNEM EGPDHKASAT PDILAALVKG VRIVEQSLGK FEKEPEEEEV RNKIVARKSI
VAKKAIAKGE VFTEENITVK RPGNGISPME WYKVLGQVSE QDFEEDQNIC
HSAFENQM

Fig. 3 cont.

CPS2P

27/59

MKKICFVTGS RAEYGIMRRL LSYLQDDPEM ELDLVVTAMH LEEKYGMTVK DIEADKRRIV
KRIPLHLDT SKQTIVKSLA TLTEQLTVLF EEVQYDLVLI LGDRYEMLPV
ANAALLYNIP ICHIHGEKT MGNFDESIRH AITKMSHLHL TSTDEFNRNV IQLGENPTMY

Fig. 3 cont.

CPS2Q

28/59

MELGIDFAED YYVVLFHPVT LEDNTAEEQT QALLDALKED GSQCLIIGSN SDTHADKIME
LMHEFVKQDS DSYIFTSLPT RYYHSLVKHS QGLIGNSSSG LIEVPSLQVP
TLNIGNRQFG RLSGPSVVHV GTSKEAIVGG LGQLRDVIDF TNPFEQPDSA LQGYRAIKEF
LSVQASTMKE FYDR

Fig. 3 cont.

CPS2R

29/59

MKKVAFLGAG TFSDGVLWL DRTRYELIGY FEDKPISDYR GYPVFGPLQD VLTYLDDGKV
DAVFVTIGDN VKRKEIFDLL AKDHYDALFN IISEQANIFS PDSIKGRGVF
IGFSSFVGAD SYVYDNCIIN TGAIVEHHTT VEAHCNITPG VTINGLCRIG ESTYIGSGST
VIQCIEIAPY TTLGAGTVVL KSLTESGTYV GVPARKIK

Fig. 3 cont.

CPS2S

30/59

MEPICLIPAR SGSKGLPNKN MLFLDGVPMI FHTIRAAIES GCFKKENIYV STDSEVYKEI
CETTGQVQVLM RPADLATDFT TSFQLNEHFL QDFSDDQVFV LLQVTSPLRS
GKHVKEAMEL YGKGQADHVV SFTKVDKSPT LFSTLDENGF AKDIAGLGGS YRRQDEKTLY
YPNGAIYISS KQAYLADKTY FSEKTAAYVM TKEDSIDVDD HFDFGTGVIGR
IYFDYQRREQ QNKPFYKREL KRLCEQRVHD SLVIGDSRLL ALLLDGFDNI SIGGMTASTA
LENQGLFLAT PIKKVLLSLG VNDLITDYPL HMIEDTIRQL MESLVSKAEQ
VFVTTIAYTL FRDSVSNEEI VQLNDVIVQS ASELGISVID LNEVVEKEAM LDYQYTNDGL
HFNQIGQERV NQLILTSLTR

Fig. 3 cont.

CPS2T

ATCGCCAAAC GAAATTGGCA TTATTTGATA TGATAGCAGT TCGAATTCT GCAATCTAA CAAGTCATAT
 ACCAAATGCT GATTTAAATC GTTCTGGAAT TTTTATCATA
 ATGATGGTC ATTATTTGC ATTTTTATA TCTCGTATGC CAGTTGAATT TGAGTATAGA GGTAAATCTGA
 TAGAGTTGA AAAAACATT AACTATAGTA TAATATTGCA
 AATTTTCTT ACGGCAGTAT CATTTTGTT GGAGAATAAT TTGCACTTT CAAGACGTGG TGCCGTGTAT
 TTCACATTAA TAAACTTCGT TTTGGTATAC CTATTTAACG
 TAATTAAAC GCAGTTTAAG GATAGCTTC TATTTCGAC AATCTATCAA AAAAGACGA TTCTAATTAC
 AACGGCTGAA CGATGGGAAA ATATGCAAGT TTATTTGAA
 TCACATTAAC AAATTCAAA AAATCTGTT GCATTGGTAG TTTAGGTAC AGAAATAGAT AAAATTAATT
 TATCATTACC GCTCTATTAT TCTGTGGAAG AAGCTATAGA
 GTTTCAACA AGGGAAGTGG TCGACCACGT CTTTATAAAT CTACCAAGTG AGTTTTAGA CGTAAAGCAA
 TTCGTTTCAG ATTTTGAGTT GTTAGGTATT GATGTAAGCG
 TTGATATTAA TTCATTCGGT TTTACTCGGT TGAAAACAA AAAATCCAA CTGCTAGGTG ACCATAGCAT
 TGTAACTTT TCCACAAATT TTTATAAGCC TAGTCATATC
 ATGATGAAAC GACTTTGGA TATACTCGGA GCGGTAGTCG GTTAAATTAT TTGTTGGTATA GTTTCTATTT
 TGTTAGTTCC AATTATTCGT AGAGATGGT GACCGGTAT
 TTTGCTCAG AAACGAGTTG GACAGAATGG ACCTATTT ACATTCTACA AGTTTCGATC GATGTATGTT
 GATGCTGAGG AGCGCAAAAA AGACTTGCTC AGCCAAAACC
 AGATGCAAGG GTGGGTATGT TTTAAATGG GAAAACGAT CCTAGAATTA CTCCAATTGG ACATTCATA
 CGCAAAACAA AGTTAGACG AGTTACACCA GTTTATAAAT
 GTTTTAATTG GCGATATGAG TCTAGTTGGT ACACGTCAC CTACAGTTGA TGAATTGAA AAATATACTC
 CTGGTCAAA GAGACGATTG AGTTTTAAC CAGGGATTAC
 AGGTCTCTGG CAGGTTAGTG GTCGTTAGAA TATCACAGAC TTCGACGACG TAGTCGGTT GGACTTAGCA
 TACATTGATA ATGGACTAT CTGGTCAGAT ATTAAAATT
 TATTAAGAC AGTGAAGGT GTATTGTTGA GAGGGGAAG TAAGTAAAAG TATATGAAAG TTTGTTGGT
 CGGTTCTTCAG GGGGGACATT TGACTCACT GTATTGTTA
 AAACGTTTT GGAAGGAAGA AGAACGTTT TGGGTAACAT TTGATAAAGA GGATGCAAGA AGTCTTTGA
 AGAATGAAAA AATGTATCCA TGTTACTTC CAACAAATCG
 CAATCTCATT AATTTAGTGA AAAATACATT CTTAGCTTTC AAAATTTAC GTGATGAGAA ACCAGATGTT
 ATTATTCAT CTGGTGCAGGC CGTTGCTGTC CCCTCTTTT
 ACATCGAAA ACTATTTGGA GCAAAGACGA TTTATATTGA AGTATTGAT CGAGTTAATA AATCTACATT
 AACTGGAAA CTAGTTTATC CCGTAACAGA TATTTTTATT
 GTTCAGTGGG AAGAAATGAA GAAGGTATAT CCTAAATCTA TTAACTGGG GAGTATTTT TAATGATT
 TGTAACAGTA GGAACCTATC AACAAACGTT TAATCGATTG
 ATAAAAAGAGA TTGATTATTG GAAAAAATTTGAAAGTATAA CCGACGAAAT ATTTATTCAA ACAGGATATT
 CTGACTATAT TCCAGAATAT TGCAAGTATA AAAAATTCT
 CAGTTACAA GAAATGGAAC AATATATTAA CAAATCAGAA GTAGTTATTG GCCACGGAGG CCCCCTACT
 TTTATGATT CATTATCCAA AGGAAAAAAA CAATTATTGT
 TTCCTAGACA AAAAAGTAT TGTGAACATG TAAATGATCA TCAAGTAGAG TTTGTAAGAA GAATTTACA
 AGATAATAAT ATTTTATTAA TAGAAAATAT AGATGATTG
 TTTGAAAAAA TTATTGAAGT TTCTAAGCA ACTAATTAA CATCAAATAA TAATTTTTT TGTGAAAGAT
 TAAAACAAAT AGTGAAGAAA TTAAATGAGG ATCAAGAAA
 TGAATAATAA AAAAGATGCA TATTTGATAA TGGCTTATCA TAATTTCT CAGATTTCAC TGGAGAGGGA
 TACAGATATT ATCATCTCT CTCAGGAGAA TGCACACCAT
 TAGTTCTTC AGAATACCTG TATAATTATT TTAAATATTTC TCAGGATTAA TATGTTGAAT TTACAAAAGA
 TGAGCAAAA TATAAGAAA ATAGGATATA TGAACGAGTT
 AAATGTTACA GATTATTCC TAAATATCA GAAAACACTA TTGATAATGT ACTGTTAGA ATTTTATTAA
 GAATGTTATCG AGCTTTGAA TACTATTAC AAAGATTGTT
 GTTTATTGAT AGAATAAAA ACATGGCTA AGAATAAGAT TTGGTTCTAA TTGGGTTTCG CTTCCACATG
 ATTTTGTGGC AATTCTTTA TCAAATGAA ACGAAACAGC
 TTATTTATT TAAAGTATCTA AATGTCAGA TGAACATTAA ATACAGACAA TTATGAAAAA ATATGAATT
 TCAAATAGAT TATCTAAATA TGGAAATTAA AGATATATAA
 AGTGGAAAAAA ATCAACATCT TCTCCTATG TCTTACAGA TGATTCTATT GATGAAATTGC TAAATGCAAG
 AAATTTAGGT TTTTATTG CTAGAAAGTT AAAAATAGAA
 AATAAATCTA AATTAAAGA AATTATTACT AAAAATAAA ATAGTTGATT TTGTTGAGAGT AATGTATGTT
 TAAATTATT AAATATGACC CGGAATATT TATTTTAAAG
 TACTCTGGT TGATTATTAA TATTCCAGAG CAAAAGTATG TATTTTATT AATTTTATG AATTTAATT
 TATTCATAT AAAATTTTG AAAACTAAGC TAATATTAA
 AAATGAAATT TTATTGTT TATTATGGTC TATATTATGT TTGTTTCAG TAGTCACAAG TATGTTGTT
 GAAATAATT TTGAAAGATT ATTTGCAGAT TTTACTGCTC
 CCATAATTG GATTATTGCA ATAATGTATT ATAATTGTA TTCAATTATA AATATTGATT ATAAAAAATT
 AAAAATAGT ATCTTTTTA GTTTTTAGT TTTATTAGGT
 ATATCTGCAT TGTATATTAT TCAAAATGGG AAAGATATTG TATTTTAAAGA CAGACACCTT ATAGGACTAG
 ACTATCTTAA AACAGGCGTC AAAACAAGGT TGGTTGGCTT
 TATGAACTAT CCTACGTTAA ATACCACTAC AATTATAGTT TCAATTCCGT TAATCTTGC ACTTATAAAA
 ATAAAAATGC AACAAATTAA TTTCTTGTT CTTGCTTTA

TACCGATCTA TTTAAGTGGG TCGAGAATTG GTAGTTATC GCTAGCAATA TTAATTATAT GCTTGTTATG
 GAGATATATA GGTGGAAAT TTGCTTGGAT AAAAAAGCTA
 ATAGTAATAT TTGTAATACT ACTTATTATT TAAATACTG
 ATAATTCTAG AGAATCAAGT AACGAAGCTA GATTATTAT
 TTATCAAGGA AGTATTGATA AAGTATTAGA AAACAATTAT
 GTTACGGGAA CTTGGCTCGG AAGTCATTCA GGCTATATAT
 CATTTTTTA TAAATCAGGA ATAGTTGGT TGATTTACT
 AAGTTATGGA GTTAATGGGG AACACAGACT ATTTTATTT
 ACATCATTAG CCATATTTT CATATATGAA ACAATAGATC
 CTTCATAGG TATTTGGAA AATATAAATT TAAAAAGGA
 TATGGAGACA AAAAAATGAAT GATTTAATT CAGTTATTGT
 TAAATGTATT AACAGTATTAA TAAACCAAAC ATATACTAAT
 TTAGAGGTTA TTCTCGTAA TGATGGAGT ACTGATGATT
 ACGATGGAAG AATTAAATAT TACAAGAAA TTAATGGCGG
 TCTAGCAGAT GCTCGAAAT TCGGACTAGA ACATGCAACA
 GACTATATAG AAGTTGCAAT GTTCGAGAGA ATGCATGATA
 ATATAACTGA GTATAATGCC GATATAGCAG AGATAGATT
 GAAAAAAAAGA AATAGTAATT TTCATGTCTT AACGAGAGAA
 GAGACTGTAAGAATTTT GTCAGGATCT AATATAGAAA
 ATATTAAAAAGAATATAAA TTCCAATTAA ATAATAGAAG
 TATTGGTGAG GATTGCTTT TTAATTGGA GGTCTTGAAC
 GAATATTATT ATAATTATGT CATTCTGAA AGTTCGCTTA
 TTAATCAGAA ATTCTCTATA AATAATATTG ATTTAGTCAC
 AAGAGAGTTT AGTCATTATT TTGATGCAA AGTTATTAAA
 GAGAAGGTTA ATGTTTAA CAAAATGTAT TCAACAGATT
 AGTCTTATCG AAAAGAAATA CGTAGATATC CATTATTAA
 AGCGAAAAGA TATTTATCAA GAAAGCATT AGTTACGTTG
 GTAATGTTAT ATAAGAATTATC TCAAAGCAG TAGAGGTTAA
 AATGGAAAAA ATAGTGTAA TTGTTCCAGT TTATAATGTA
 ATTATTAAATC AAAATTATAA AAATATAGAA ATATTATTGAA
 TAGATGATGG CTCTGTAGAT GATTCTGCTA AAATATGCAA
 AATTTCCTC ACTAATCATC GTGGAGTATC AAATGCTAGA
 AATCATGGAA TAAAGCGGAG TACAGCTGAA TATATTATGT
 GATTAGTAGA AAAATTATAT TTAAATATTA TAAAAGTAG
 AAGTGAATTAA TCTGGTTGTT TGACGCTAC TTTTCAGAA
 AATATTGATT TTGAAGCAAT TAATACCGTG CAGGACATGG
 GAGAAAAAAA TTATGATTTA TTGTTATTAATATATT
 AAGATACATA ACAGATCTT TTCAAGAGAA TCAATGGTTA
 GGAGAAGATT TACTTTTAA TCTGCATTAT TTAAAGAATA
 TTTATTTTA TAGGAGAGGT ATACTAAGTA CAGTAAATT
 TTTAAAGAA GGTGTGTTT TGCAATTGGA AAATTCGAA
 TATGGTGAGG ATTTGACGT ATCAATTGTT AAAGATACTA
 TACGTTGGCA AGTATTATTT TATAGCTTAC TAATGTTAA
 TTTAATTTTT AGAAATCTT ATAAAAAATA TTATTTTAAAC
 TTGTTAAAG TATCTAACAA AAATTCTTG TCTAAAAATT
 TTAAAAAAAT ATATGGTTA TAATAGGAG ATATCATGGA
 TACTATTAGT AAAATTCTA TAATTGTACC TATATATAAT
 AGCATTGTAA ATCAGACCTA CAAACATATA GAGATTCTC
 TGGTGAATGA CGGTAGTAGC GATAATTGGG AAGAAATTG
 TCGTTATTAA AAAAAGAGA ACGGCGGGCT ATCAGATGCC
 CGTAATTATG GCATAAGTCG CGCCAAGGGT GACTACTTAG
 CGGAGTTCAT CCAACGTTA CACGAAGCAA TTGAGAGAGA
 GAATGCCCTT GTGGCAGTTG CTGGTTATGA TAGGGTAGAT
 CTTCTACAA ATCAGGCTGT TCTGAGCGGC AGGAATGTT
 GTAAAAAGCT GCTAGAGGCG GATGGTCATC GCTTGTGGT
 ATTTGAAGAT TTTCGATTG AAAAGGGTAA GATTGATGAA
 GATGAATACT TCACTTATCG CTTGCTCTAT GAGTTAGAAA
 ATTATGTTGA CCGAGAAAAAT AGTATCACA CTTCTAGCAT
 GACTGACCAT CGCTTCCATT GCCTACTGGG ATTTCAAAT
 GATAAAAGAGC TCTTACTAGA GTGTTATCGT TCATTTTAG
 CCTTGTGT TTTGTTTTA GGCAAATATA ATCATTGGTT
 GAGCAAACAG CAAAAGAAGC TT

33/59

ROTKLALFDM IAVAISAILT SHIPNADLNR SGIFIIMMVH YFAFFISRMP VEFYRGMLI
EFEKTFNYSI IFAIFLTAVS FLENNFALS RRGAVYFTLI NFVLVYLFNV
IIKQFKDSFL FSTIYQKKTI LITTAERWEN MQVLFESHKQ IQKNLVALVV LGTEIDKINL
SLPLYYSVEE AIEFSTREVV DHVFINLPSE FLDVKQFVSD FELLGIDVSV
DINSFGFTAL KNKKIQLLGD HSIVTFSTNF YKPSHIMMKR LLDILGAVVG LIICGIVSIL
LVPIIRRDGG PAIFAQKRVG QNGRIFTFYK FRSMYVDAEE RKKDILLSQNQ
MQGWVCFKMG KTILELLQD ISYAKTSLDE LPQFYNVLIG DMSLVGTRPP TVDEFEKYTP
GQKRRLSFKP GITGLWQVSG RSNITDFDDV VRLDLAYIDN WTIWSDIKIL
LKTVKVVLLR EGSK

Fig. 4 cont.

CPS1E

34/59

MKVCLVGSSG GHLTHLYLLK PFWKEEERFW VTFDKEDARS LLKNEKMYPC YFPTNRNLIN
LVKNTFLAFK IILRDEKPDVI ISSGAAVAVP FFYIGKLFGA KTIYIEVFDR
VNKSTLTGKL VYPVTDIFIV QWEEMKKVYP KSINLGSIF

Fig. 4 cont.

CPS1F

35/59

MIFVTVGTHE QQFNRLIKEI DLLKKNGSIT DEIFIQTGYS DYIPEYCKYK KFLSYKEMEQ
YINKSEVVIC HGGPATFMNS LSKGKKQLLF PRQKKYGEHV NDHQVEFVRR
ILQDNNILFI ENIDDLFEKI IEVSKQTNFT SNNNFFCERL KQIVEKFNED QENE

Fig. 4 cont.

CPS1G

36/59

MFKLFKYDPE YFIKYFWLI IFIPEQKYVF LLIFMNLILF HIKFLKTKLI LKNEILLFLL
WSILCFVSVV TSMFVEINFE RLFADFTAFI IWIIAIMYVN LYSFINIDYK
KLKNSIFFSF LVLLGISALY IIQNGKDIVF LDRHLIGLDY LITGVKTRLV GFMNYPTLNT
TTIIVSIPLI FALIKNKMQQ FFFLCLAFIP IYLSGSRIGS LSPLAIIIC
LLWRYIGGKF AWIKKLIVIF VILLIILNTE LLYHEILAVY NSRESSNEAR FIIYQGSIDK
VLENNILFGY GISEYSVTGT WLGSHSGYIS FFYKSGIVGL ILLMFSFFYV
IKKSYGVNGE TALFYFTSLA IFFIYETIDP IIIILVLFFS SIGIWNINIF KKDMETKNE

Fig. 4 cont.

CPS1H

37/59

MNDLISVIVP IYNVQDYLDK CINSIINQTY TNLEVILVND GSTDDSEKIC LNYMKNDGRI
KYYKKINGGL ADARNFGLEH ATGKYIAFVD SDDYIEVAMF ERMHDNITEY
NADIAEIDFC LVDENGYTKK KRNSNFHVLT REETVKEFLS GSNIENNWC KLYSRDIIKD
IKFQINNRSI GEDLLFNLEV LNNVTRVVVD TREYYNYVI RNSSLINQKF
SINNIDLVTR LENYPFKLKR EFSHYFDAKV IKEKVKCLNK MYSTDCLDNE FLPILESYRK
EIRRYPFIKA KRYLSRKHLV TLYLMKFSPK LYVMLYKKFQ KQ

Fig. 4 cont.

CPSII

MDKISVIVPV YNVDKYLSSC IESIINQNYK NIEILLIDG SVDDSAKICK EYEKDKRVKI
FFTNTSGVSN ARNHGIKRST AEYIMFVSD DVVDSRLVEK LYFNIIKSRS
DLSGCLYATF SENINNFEVN NPNIDFEAIN TVQDMGEKNF MNLXXNNIFS TPVCXLYQKR
YITDLFOENQ WLGEDLLLNL HYLKNIDRVS YLTEHLYFYR RGILSTVNSF
KEGVFLQLEN LQKQVIVLFK QIYGEDFDVS IVKDTIRWQV FYYSLLMFKY GKQSIFDKFL
IFRNLYKKYY FNLLKVSNKN SLSKNFCIRI VSNKVFKKIL WL

Fig. 4 cont.

CPS1J

MDTISKISII VPIYNVEKYL SKCIDSIVNQ TYKHEILLV NDGSTDNSE ICLAYAKKDS
RIRYFKKENG GLSDARNYGI SRAKGDYLAF IDSDDFIHSE FIQLHEAIE
RENALVAVAG YDRVDAASGHF LTAEPLPTNQ AVLSGRNVCK KLEADGHRF VVACNKLK
ELFEDFRFEK GKIHEDEYFT YRLLYELEKV AIVKECLYYY VDRENSITTS
SMTDHRFHCL LEFQNERMDF YESRGDKELL LECYRSFLAF AVLFLGKYNH WLSKQQKK

Fig. 4 cont.

CPS1K

AAGCTTATCG TCAAGGTGTT CGCTATATCG TGGCGACATC TCATAGACGA AAAGGGATGT
 TTGAAACACC AGAAAAAGTT ATCATGACTA ACTTTCTTCA ATTTAAAGAC
 GCAGTAGCAG AAGTTTATCC TGAAATACGA TTGTGCTATG GTGCTGAATT GTATTATAGT
 AAAGATATAT TAAGCAAAC TGAAAAAAAG AAAGTACCCA CACTTAATGG
 CTCGCCTAT ATTCTTTGG AGTCAGTAG TGATACCTC TGGAAAGAGA TTCAAGAAC
 AGTGAACGAA GTGACGCTAC TTGGCTAAC TCCCGTACTT GCCCATATA
 AACGATATGA CGCCCTAGCG TTTCATGCAG AGAGAGTAGA AGAGTTAATT GACAAGGGAT
 GCTATACTCA GGTAAATAGT AATCATGTGC TGAAGCCAC TTTAATTGGT
 GATCGAGCAA AAGAATTAA AAAACGTACT CGGTATTTTT TAGAGCAGGA TTTAGTACAT
 TGTGTTGCTA GCGATATGCA TAATTATCT AGTAGACCTC CGTTTATGAG
 GGAGGCTTAT AAGTTGCTAA CAGAGGAATT TGGCAAGAT AAAGCGAAAG CGTTGCTAAA
 AAAGAATCCT CTTATGCTAT TAAAAAAACCA GGCGATTAA ACTGGTTACT
 CTAGATTGTG GAGAGAAAAA TGGATTTAGG AACTGTTACT GATAAATCTGT TAGAACGCAA
 CAGTAAACGA TTGATACCTG TGTGATGGA TACGTGCTT CTATAGTTT
 CCATGATTT GAGCAGACTG TTTTGGAT TTATTATTGA TACACCAGAT GAACGCTTCA
 TTCTGCTAGT TTTATTGTA CTAATTATTTAT ATCGTTTACA ATCGTTTACA
 TTTAAAGTCT TTTCATTAAT TACGCGTTAC ACAGGGTATC AGAGTTATGT AAAAATAGGA
 CTTAGTTAA TATCTGCGCA TTCATTGTT TTAATTATCT CAATGGTGT
 GTGGCAGGCT TTTAGTTATC GTTTCATCTT AGTATCCTA TTTTGTGCGT ATGTAATGCT
 CATTACTCCG AGGATTGTT GGAAAGTCTT ACATGAGACG AGAAAAAAATG
 CTATCCGTA GAAGGATAGC CCACTAAGAA TCTTAGTAGT AGGTGCTGGA GATGGTGGTA
 ATATTTTAT CAACTATGTC AAAGATCGAA AATTGAATT TGAAATTGTC
 GGTATCGTT ATCGTGTATCC AAATAAAACTT GGAAACATTAA TCCGTACCGGC TAAAGTTTA
 GGAAACCGTA ATGATATTCC ACGACTGGT GAGGAATTAG CTGTTGACCA
 AGTGACGATT GCCATCCCTT CTTTAAATGG TAAGGAGCGA GAGAAGATTG TTGAAATCTG
 TAACACTACA GGAGTGCACCG TCAATAATAT GCGGAGTATT GAGAACATTA
 TGGCGGGGAA CATGCTGTC AGTGCCTTTC AGGAAATTGA CGTAGCAGAC CTTCTGGTC
 GACCAGAGGT TGTTTGGAT CAGGATGAAT TGAATCAGTT TTCCAAGGG
 AAAACAATCC TTGTCACAGG AGCAGGTGGC TCTATCGTT CAGAGCTATG TCGTCAAATT
 GCTAAGTTA CGCCTAAACG CTTGTTGTG CTTGGACATG GAGAAAATTG
 AATCTATCTC ATTCACTCGAG AGTTACTGGA AAAGTACCAA GTAAAGATTG AGTTGGTCCC
 TCTCATTGCA GATATTCAAG ATAGAGAATT GATTTTACG ATAATGGCTG
 AATATCAACC CGAGTGTGTT TATCATGCTG CAGCACATAA GCATGTTCCCT TTGATGGAAT
 ATAATCCACA TGAAGCAGT AAGAATAATA TTTTTGGAAC GAGAAATGTC
 GCTGAGGGGG CTAAAATGTC AAAGGTTGGC AAATTGTTA TGTTTCAAC AGATAAAAGCT
 GTTAATCCAC CAAATGTCAT GGGAGCGACT AAACGTGTT CAGAAATGAT
 TGTTACAGGT TAAACGAGC CAGGTGAGAC TCAATTGCG GCAGTCCGGT TTGGGAATGT
 TCTAGGTAGT CGTGAAGTG TTGTTCCGCT ATTCAAAGAG CAAATTAGAA
 AAGGTGGACC TGTTACGGTT ACCGACTTTA GGATGACTCG TTATTCATG ACGATTCTG
 AGGCAAGTCG TTTGTTTATC CAAGCTGGAC ATTTGGCATAA AGGTGGAGAA
 ATATTTGCT TGGATATGGG CGAGCCAGTA CAAATCCTGG AATTGGCAAG AAAAGTTATC
 TTGTTAAGTG GACACACAGA GGAAGAAATC GGGATTGTAG AATCTGGAAAT
 CAGACCAGGC GAGAAACTCT ACAGGAGAATT ATTATCAACA GAGAACGTC TCAGCGAAC
 GATTCATGAA AAAATATTG TGTTGCGCT TACAAATAAG CAGTCGGACA
 TTGTCATTTC ATTATTCATAA GGATTACTC AAAAGATAG AAATGAATTAA AAAATATGT
 TGATTGAATT TGAAAACAA GAATAAGAAA GTAAAAAATA TTTTTACTTT
 CCTAGAGTTT AAACGATGTT TAAGTTCTAG GAAGGTTAGA ATACCTAATT AACACAAATA
 TTACTATTAA TTAAGAGTC GATAATAGCA ACTAAGTGT ACAAAACTATC
 TTTATAATAA GTATATTGG TCAAAAGGG AATGTGAAAT GTATCCAATT TGAAACGTA
 TTTTAGCAAT TATTATCTCA GGGATTGCTA TTGTTGTTCT GAGTCCAATT
 TTATTATTGA TTGCAATTGGC AATTAAATTA GATTCTAAAG GTCCGGTATT ATTTAAACAA
 AAGCGGGTTG GTAAAAACAA GTCACTACTT ATGATTTTATA AATCCGGTC
 TATGTACGTT GACGCAACCA GTGATATGCC GACTCATCTA TAAAGGATC CTAAGGCAT
 GATTACCAAG GTGGCGCGT TTCTCAGAAA AACAAAGTTA GATGAACTGC
 CACAGCTTT TAATATTAA AAAGGTGAAA TGGCGATTGT TGTTCCACGC CCAGCCTTAT
 GGAATCAATA TGACTTAATT GAAGAGCGAG ATAAATATGG TGCAATGAT
 ATTCTGCTCTG GACTAACCGG TTGGGCTCAA ATTAATGGTC GTGATGAATT GGAAATTGAT
 GAAAAGTCAA AATTAGATGG ATATTATGTT CAAATATGA GTCTAGGTTT
 GGATATTAAA TGTTCTTAG GTACATTCTC CAGTGTAGCC AGAAGCGAAG GTGTTGTTGA
 AGGTGGAACA GGGCAGAAAG GAAAAGGATG AAATTTCAAG TATTAATGTC
 GGTCTATGAG AAAGAAAAAC CAGAGTTCT TAGGGAATCT TTGAAAGCA TCCTTGTCAA
 TCAAACAAATG ATTCCAAACGG AGGTGTCCTT GGTAGAGGAT GGGCCACTCA
 ATCAGAGCTT ATATAGTATT TTAGAAGAAT TAAAGTCG ATTTCAATT TTTAAACGA
 TAGCCCTGGA AAAGAATTG GGTGTTAGGAA TTGCACTGAA TGAAGGTTT
 AACACATTGTA ATTATGAGTG GGTGTTGCAAG AAATGGATT TGATGATGTT GCATATACAT
 ACACGTTTG AAAAGCAAGT TAACATTATAA AAACAAACCG CAGCTATAGA

TATTGAGATA GATGAGTTCT TAAATTCTAC TAGTGAATAA GTTTCTCATA AAAATGTTCC
AACCCAGCAC GATGAAATAT TAAAGATGGC AAGGCAGGAG AAATCCATGT
GCCACATGAC TGTAATGTT AAAAGAAAA GTGTCGAGAG AGCAGGGGG TATCAAACAC
TTCCGTACGT AGAAGATTAT TTCCCTTGGG TGCGCATGAT TGCTTCAGGA
TCGAAATTG CAAACATTGA TGAAACACTA GTTCTTGCAC GTGTTGGAAA TGGGATGTT
AATAGGAGGG GGAACAGAGA ACAAATTAAC AGTTGGACAT TACTAATTGA
ATTTATGTTA GCTCAAGGAA TTGTTACACC ACTAGATGTA TTTATTAATC AAATTTACAT
TAGGGTCTTT GTTATATGC CAACTTGGAT AAAGAAAATC ATTTATGGAA
AAATCTTAAG GAAATAGTAT GATTACAGTA TTGATGGCTA CATATAATGG AAGCCCATT
ATAATAAAAC AGTTAGATT CATTGAAAT CAAAGTGTAT CAGCAGACAA
AGTTATTATT TGGGATGATT GCTCGACAGA TGATACAATA AAAATAATAA AAGATTATAT
AAAAAAATAT CTCTTGGATT CATGGGTGT CTCTCAAAAT AAATCTAATC
AGGGGCATTA TCAAACATT ATAAATTG ACAAAGTTAGT TCAGGAAGGA ATAGTCTTT
TTTCAGATCA AGATGATATT TGGAATGTC ATAAATTGA GACAATGCTT
CCAATCTTG ACAGAGAAA TGATCAATG GTGTTTGCA AATCCAGATT GATTGATGAA
AACGGAAATA TTATCAGTAG CCCAGATACT TCGGATAGAA TCAATACGTA
CTCTCTAGA

Fig. 5 cont.

AYROGVRYIV ATSHRRKGMF ETPEKVIMTN FLQFKDAVAE VYPEIRLCYG AELYYSKDIL
SKLEKKKVPT LNGSRYILLE FSSDTPWKEI QEAVNEVTLL GLTPVLAHIE
RYDALAFHAE RVEELIDKGC YTQVNSNHVL KPTLIGDRAK EFKKRTRYFL EQDLVHCVAS
DMHNLSSRPP FMREAYKLLT EEFGKDKAKA LLKKNPLMLL KNQAI

Fig. 5 cont.

CPS9D

MDLGTVDK LERNSKRLIL VCMDTCLLIV SMILSRFLD VIIDIPDERF ILAVLFVSIL
YLILSFRLKV FSLITRMTGY QSYVKIGLSI ISAHSLFLII SMVLWQAFSY
RFILVSLFLS YVMLITPRIV WKVLHETRKN AIRKKDSPLR ILVVGAGDGG NIFINTVKDR
KLNFEIVGIV DRDPNKLGTF IRTAKVLGNR NDIPRLVEEL AVDQVTIAIP
SLNGKEREKI VEICNTTGVVT VNMPMSIEDI MAGNMSVSAF QEIDVADLLG RPEVVLDQDE
LNQFFQGKTI LVTGAGGSIG SELCROIAKF TPKRLLLGH GENSIYLIHR
ELLEKYQGKI ELVPLIADIQ DRELIFSIMA EYQPDVYYHA AAHKHVPILME YNPHEAVKNN
IFGTKNVAEA AKTAKVAKFV MVSTDKAVNP PNVMGATKRV AEMIVTGLNE
PGQTOFAAVR FGNVLGSRGS VVPLFKEQIR KGGPVTVTDF RMTRYFMTIP EASRLVIQAG
HLAKGGEIFV LDMGEPVQIL ELARKVILLS GHTEEEIGIV ESGIRPGEKL
YEELLSTEER VSEQIHEKIF VGRVTNKQSD IVNSFINGLL QKDRNELKNM LIEFAKQE

Fig. 5 cont.

CPS9E

44/59

MYPICKRILA IIISGIAIVV LSPILLIILAIKLDKGPV LFKQKRVGKN KSYFMIYKFR
SMYVDAPSDM PTHLLKDPKA MITKVGAFLR KTSLDELPQL FNIFKGEMAI
VGPRPALWNQ YDLIEERDKY GANDIRPGLT GWAQINGRDE LEIDEKSKLD GYYVQNMSLG
LDIKCFLGTF LSVARSEGVV EGGTGQKGKG

Fig. 5 cont.

CPS9F

45/59

MKFSVILMSVY EKEKPEFLRE SLESILVNQT MIPTEVVVLVE DGPLNQSLYS ILEEFKSRSF
FFKTIALEKN SGLGIALNEG LKHNCNYEWVC TKWILMMHLHI HTRFEKQVN
IKQNPTIDIE IDEFLNSTSE IVSHKNVPTQ HDEILKMARR EKSMCHMTVM FKKKSVERAG
GYQTLPYVED YFLWVRMIAS GSKFANIDET LVLARVGNGM FNRRGNREQI
NSWTLLIEFM LAQGIVTPLD VFINQIYIRV FVYMPTWIKK LIYGKILRK

Fig. 5 cont.

CPS9G

46/59

MITVLMATYN GSFFIIKQLD SIRNQSVSAD KVIIWDDCST DDTIKIICKY IKKYSLD SWV
VSQNKSNOGH YQTFINLTKL VQEGIVFFSD QDDIWDCHKI ETMLPIFDRE
NVSMVFCKSR LIDENGNIIS SPDTSDRINT YSL

Fig. 5 cont.

CPS9H

CTGCAGCACA TAAGCATGTT CCATTGATGG AATATAATCC ACATGAAGCA GTGAAGAATA
 ATATTTTGG AACGAAGAAT GTGGCTGAGG CGGCTAAAC TGCAAAGGTT
 GCCAAATTTG TTATGGTTTC AACAGATAAA GCTGTTAAC TGCCAAATGT CATGGGAGCG
 ACTAAACGTG TTGCAAGAAAT GATTGTAACA GGTTTAAACG AGCCAGGTC
 GACTCAATTG CGGGCAGTCC GTTTGGAA TGTTCTAGGT AGTCGTTGAA GTGTTGTTCC
 GCTATTCAAAG GAGCAAAATTA GAAAAGGTGG ACCTGTTACG GTACCGACT
 TTAGGATGAC TCGTTATTC ATGACGATTC CTGAGGCAAG TGCTTGGTT ATCCAAGCTG
 GACATTGGC AAAAGGTGG AAAATCTTG TCTTGGATAT GGTTGAGCCA
 GTACAAATCC TGGAAATTGGC AAGAAAAGTT ATCTTGTAA CGGGACATAC AGAGGAAGAA
 ATCGGGATTG TAGAATCTGG AATCAGACCA GGGAGAAAC TCTACGGAGA
 ATTGTTATCA ACAGAAGAAC GTGTCAGCGA ACAGATTCA GAAAAAAATAT TTGTGGTCG
 CGTTACAAAT AAGCAGTCGG ACATTGTCAC TTCATTATC AATGGATTAC
 TCCAAAAGA TAGAAAATGAA TAAAAGATA TGTTGATTGA ATTTGCAAAA CAAGAATAAG
 AAAGTAAAAA ATATTTTAC TTTCCTAGAG TTTAAACGAT GTTTAAGTTC
 TAGGAAGGTT GGAATTGCTT TCGTGGAGGT GATAGATAGA AACCTATATA TTTGTTAGAAG
 AAAGGATATT AAACTAAAGG TGAATCGAA CATAAAGTTT AGATAGAGTT
 GGTATTTAAT GCGAACACGG TGAATGCAAC CTCTCGCTCG TTACTAAGCA GGAGATAGTA
 AAGTGTCTG AAAGAGAGTT TGTTAATCAG TATAAGTAGG CTAAGTGTAG
 AATATATATC TATTATTATC GTTAAATGATA CTATTATTGAA GAATTATTGT AGTGGGGATA
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 ACGATGACTA GAGTAGAGTT GATTACTAGA GAATTTTTA AGAAGAATGA TTATTAAATT
 AGCAACCGT AAATATTTTC AGAAGATAGA ATCAAGAAGA GGTGAATTAT
 CTTTATGGAT AAGTTACTTG CGCTTATCCT ATTATGCTA TTATCCCCAG
 TAATCATTAT ATTAGCTATT TGGATAAAA TAGATAGTAA GGGGCAATT TTTTATCGCC
 AAGAACGTGT TACGAGATAT GGTCGAATT TTAGAATATT TAAGTTAGA
 ACAATGATT CTGATGCGGA TAAAGTCGGA AGTCTGTCA CAGTCGGTCAGATAATCGT
 ATTACGAAAG TCGGTACAT TATCAGAAAA TATCAGCTGG ACCAAGTGCC
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 ATTCTGCTAC TGCAAGGATTG GAACATGTCT TACGAATTCT TTGGTGTGGA
 CCCGGAGATG AAGTTATTGT TTCTGCTATG ACCTATACG CCTCATGTAG TGTCAATTACT
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 GATGGAATAT GATGCTTGG AAAAGCGAT TACTCCGAA ACAAAAGTTA TCATTCTGT
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 TGACGAAGAG ATGTATAAAAG AGTTTCAGAT TTACTCTCTT CATGGTCAGA CAAAGGATGC
 ATTAGCTAAG ACACAATTAG GGTCACTGGGA ATATGACATT GTTATTCTG
 GTTACAAGTG TAATATGACA GATATTATGG CAGGTATGG TCTTGTGCAA TTAGAACGTT
 ACCCATCTT GTGAATCGT CGCAGAGAAA TCATTGAGAA ATACAATGCT
 GGCTTGAGG GGACTTCGAT TAAGCCGTTG GTACACCTGA CGGAAGATAA ACAATCGTCT
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 TGAAGTCATT CAAAAAAATGG CTGAAGCAGG TATTGCGTGC AATGTTCACT ACAAAACCATT
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 CGAATGCCTA TCAGTATTAA GAAAATGAAG TTACACTGCC TCTTCATACC AACTTGAGTG
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 GATTAGTTAT TTGGAAAGGA GATATGGTGG AAAGAGATAT GGTTGAAAGA GACACGTTGG
 TATCTATAAT AATGCCCTCG TGGAATACAG CTAAGTATAT ATCTGAATCA
 ATCCAGTCAG TGTTGGACCA AACACACCAA AATTGGAAAC TTATAATCGT TGATGATTGT
 TCTAATGACG AAACTGAAAA AGTTGTTCG CATTTCAGG ATTCAAGAAT

AAAGTTTTT AAAAATTCGA ATAATTTAGG GGCAGCTCTA ACACGAAATA AGGCACTAAG
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ACCCGAGTAA GCTAGAAAAA CAGCTTGAAT TTATGAAAAA TAATGGATAT TCATTTACTT
ATCACAATTT TGAAAAGATT GATGAATCTA GTCAGTCTT ACGTGTCCTG
GTGTCAGGAC CAGCAATTGT GACTAGAAAA ATGATGTACA ATTACGGCTA TCCAGGGTGT
TTGACTTTCA TGTATGATGC AGACAAAATG GGTTTAATTC AGATAAAAAGA
TATAAAGAAA AATAACGATT ATGCGATATT ACTTCAATTG TGTAAGAAGT ATGACTGTTA
TCTTTAAAT GAAAGTTTAG CTTCGTATCG AATTAGAAAA AA

Fig. 6 cont.

49/59

AAHKHVPLME YNPHEAVKNN IFGTTKVAEA AKTAKVAKFV MVSTDKAVNP PNVMGATKRV
AEMIVTGLNE PGQTQFAAVR FGNVLGSRGS VVPLFKEQIR KGGPVTVTDF
RMTRYFMTIP EASRLVIQAG HLAKGGEIFV LDNGEPVQIL ELARKVILLS GHTEEEIGIV
ESGIRPGEKL YEELLSTEER VSEQIHEKIF VGRVTNKQSD IVNSFINGLL
QKDRNELKDM LIEFAKQE

Fig. 6 cont.

CPS7E

MTRVELITRE FFKKNEATSK YFQKIESRRG ELFIKFFMDK LLALLLLLL SPVIIILAIW
IKLDSKGPIF YRQERVTRYG RIFRIFKFRT MISDADKVGS LVTVGQDNRI
TKVGHIIIRKY RLDEVPOLFN VLMGDMSFVG VRPEVQKYVN QYTDEMFACTL LLPAGITSPA
SIAYKDEDIV LEEYCSQGYS PDEAYVQKVL PEKMKNLEY IRNFGIISDF
KVMIDTVIKV IK

Fig. 6 cont.

CPS7F

MTKRQNIIPFS PPDIQAEID EVIDTLKSGW ITTGPKTKEI ERRLSVFTGT NKTVCILNSAT
AGLELVLRLI GVGPGDEVIV PAMTYTASCS VITHVGATPV MVDIQKNSFE
MEYDALEKAI TPKTKVIIPV DLAGIPCDYD KIYTIVENKR SLYVASDNKW QKLFGRVIIIL
SDSAHSLGAS YKGKPGASLA DFTSFSFHAV KNFTTAEGGS VTWRSHPDLD
DEEMYKEFQI YSLHGQTKDA LAKTQLGSWE YDIVIPGYKC NMNDIMAGIG LVQLERYPSL
LNRRREIIEK YNAGFEGTSI KPLVHLTEDK QSSMHLYITH LQGYTLEQRN
EVIQKMAEAG IACNVHYKPL PLLTAYKNLG FEMKDFPNAY QYFENEVTLP LHTNLSDEDV
EYVIEMFLKI VSRD

Fig. 6 cont.

CPS7G

52/59

MVERDMVERD TLVSIIMPSW NTAKYISESI QSVLDQTHQN WELIIVDDCS NDETEKVSH
FKDSRIKFFK NSNNILGAALT RNKALRKARG RWIAFLDSDD LWHPSKLEKQ
LEFMKNNGYS FTYHNFEKID ESSQSLRVLV SGPAIVTRKM MYNYGYPGCL TFMYDADKMG
LIQIKDIKKN NDYAILLQLC KKYDCYLLNE SLASYRIRK

Fig. 6 cont.

CPS7H

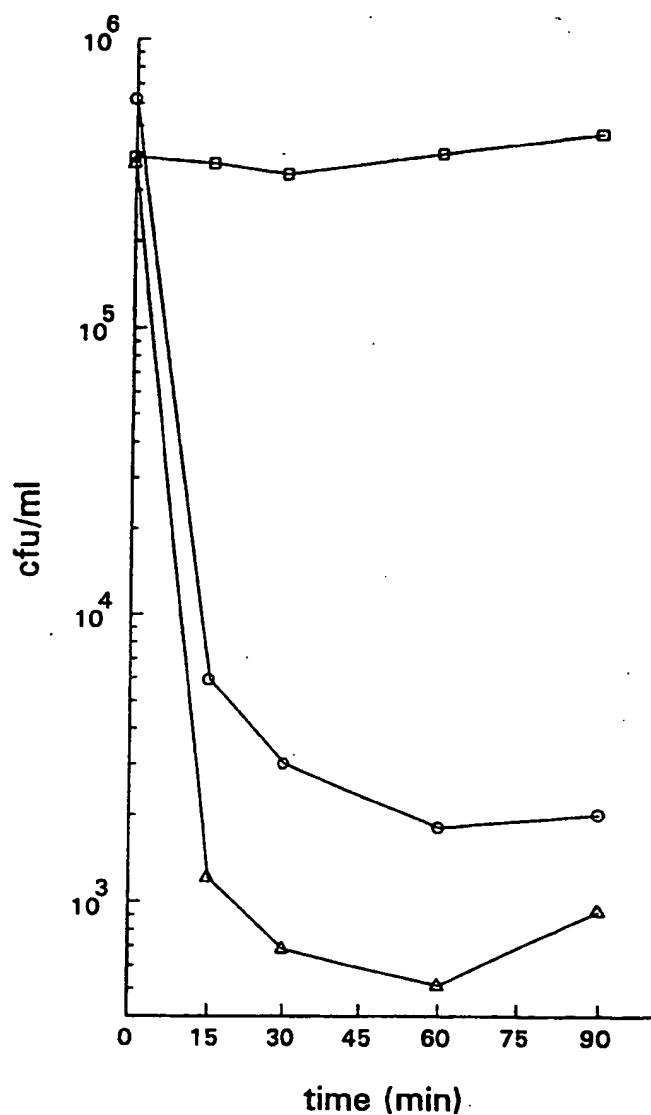


Fig. 9A

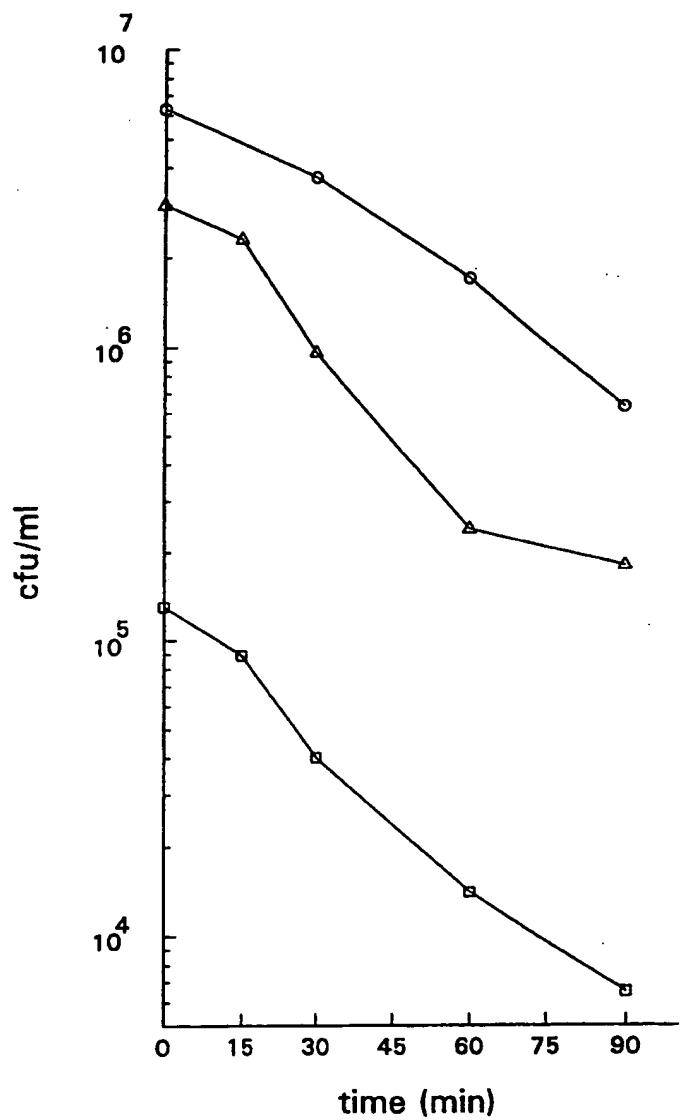


Fig. 9B

Fig. 7

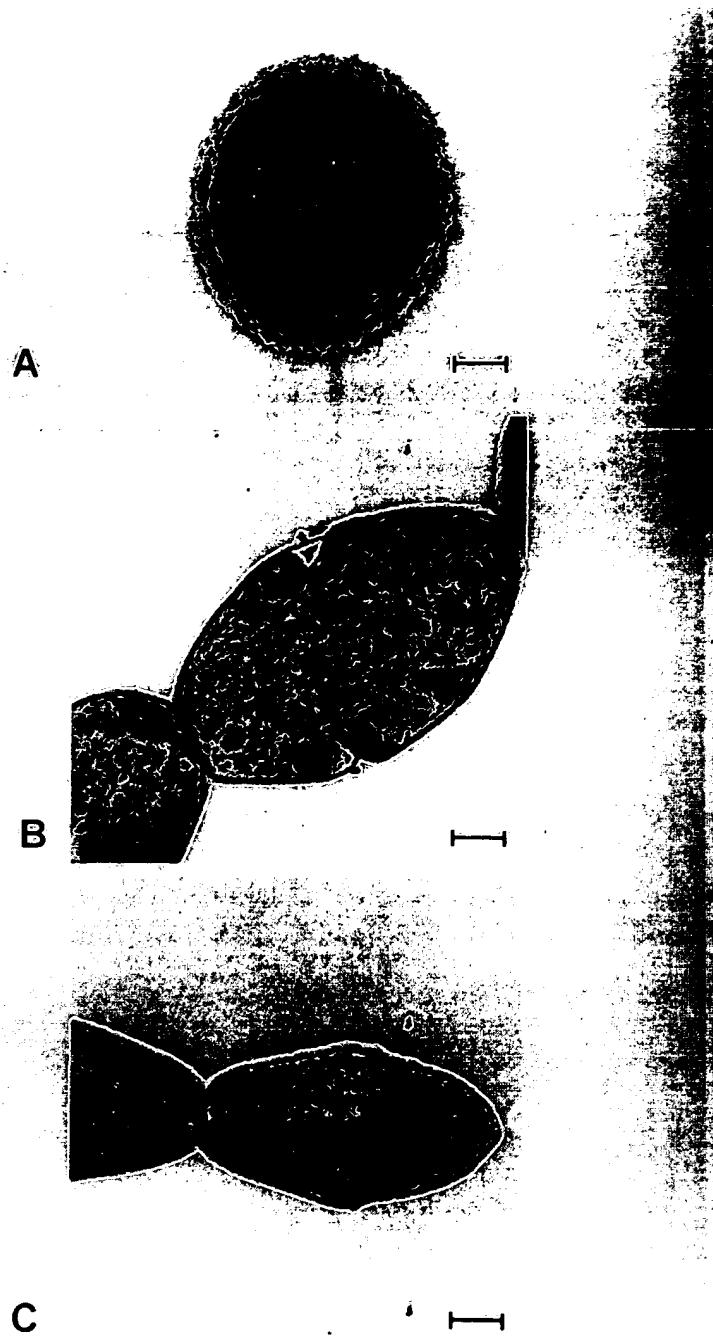
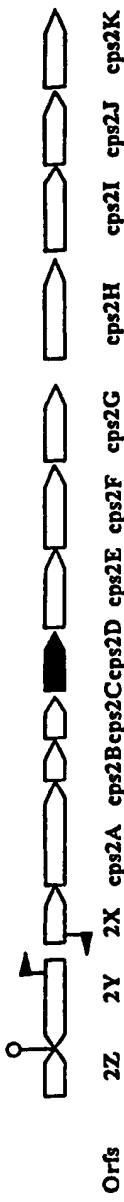


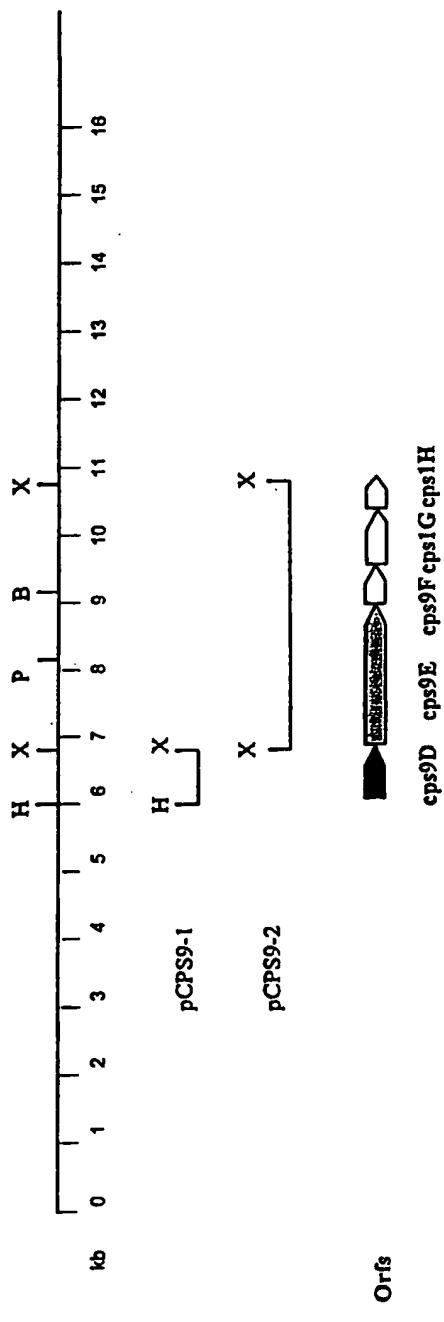
Fig. 8

Fig. 10

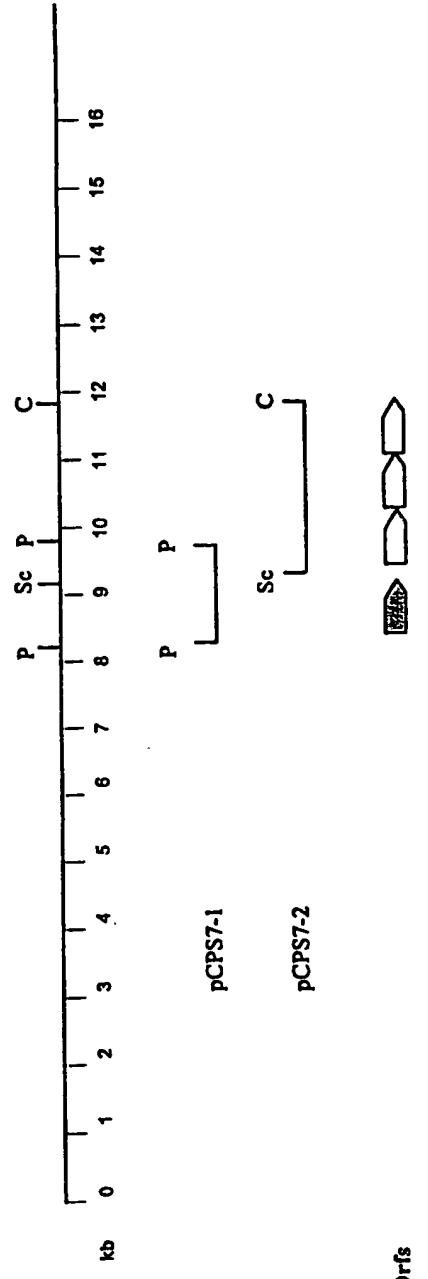
A



B



C

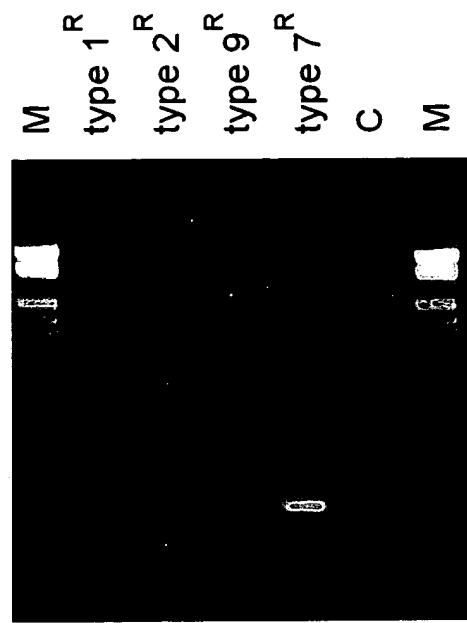


Orfs

Fig. 11

Best Available Copy

A



B

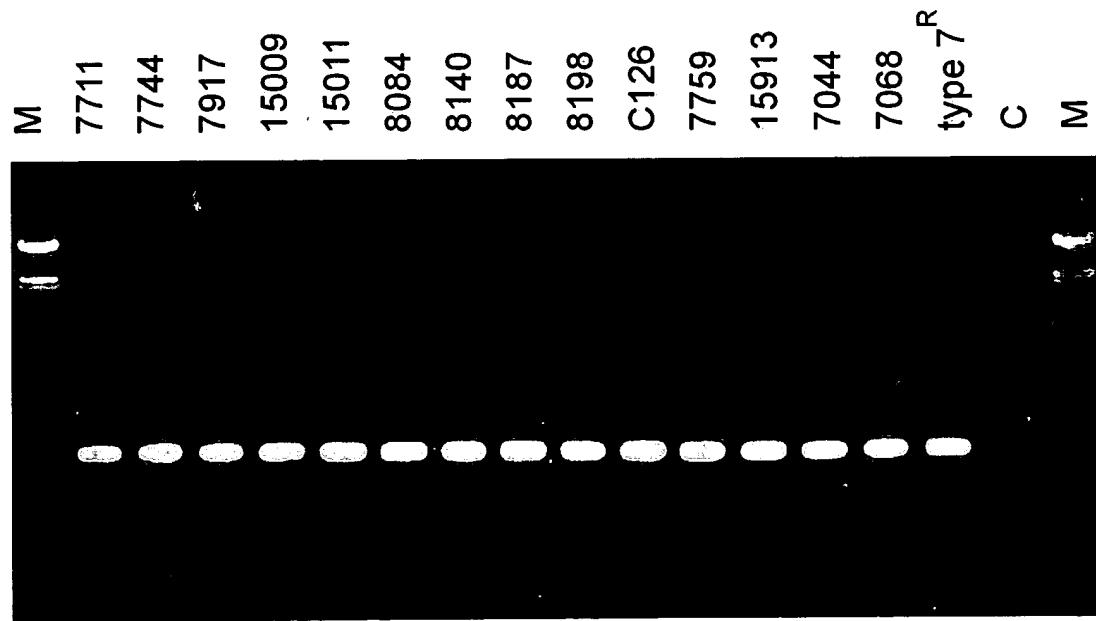


Fig. 12